



WBS 6.1: HL-LHC Pixel Upgrade

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FY17 Pixel Budget – Introduction

- Initial budget based on needs, presented at the scrubbing meeting: **\$1.554M**.
- Guidance was: \$1M (Pixel) + \$0.2M (common items) + \$0.339 (possible additional funding).
- Second round of budget, after scrubbing: **\$1.161M**. Shaved off all activities. No hard cut on a particular activity.
- Final allocation from Management: **\$0.900M**.
- Contingency added – RBTs possible.
- Shaving not sufficient anymore, need to prioritize.



FY17 Pixel Budget - Priorities

Prioritization versus: International Project, US Scope, long term / short term (TDR):

- Top priority is RD53A Chip.
- Data cables: twinax, twisted pairs.
- Ibeams: prototyping, loading.

*Following ITk Week in Valencia: attempt to merge all local support experts to converge on design. Will need effort.

- Serial Powering, Stave Flex.
- Modules.



FY17 Pixel Budget

	Post-Scrubbing (\$k)	Final (\$K)
Twinax	119	103
Serial Powering	84	76
Ibeam Fab	164	142
Cooling	46	46
Ibeam Loading	149	117
Stave Flex	20	20
TWP	83	68
RD53A	336	259
Modules	160	73
TOTAL	1161	903

* Some costs (mainly M&S) moved out of the base budget, but are possible candidates for RBT in case more funds are needed.